

LATTICE Programmable Logic Devices



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LATTICE ISPMACH 4A CPLDS

The 5Volt ispMACH 4A5 family of CPLDs supports logic macrocell densities from 32 to 256 and I/O counts from 32 to 128. The ispMACH4A5 family delivers up to 5ns SpeedLocked performance (Tpd) and operating frequencies up to 182MHz. The ispMACH 4A5 family offers more programmable logic density and I/O solutions than any other CPLD family in the industry. This breadth of this family, combined with its SpeedLocked performance and low power consumption, make it the best choice for most system logic applications.



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Lattice Part No.	Package	Voltage (V)	Tpd (ns)	Fmax	I/O	Price Each		
							1	25	100
842-LC4032ZE-5TN48C	LC4032ZE-5TN48C	TQFP-48	1.8 V	4.4	260	32	1.32	1.20	1.15
842-LC4032ZE-5MN64C	LC4032ZE-5MN64C	CSBGA	1.8 V	6.4	260	32	1.65	1.35	1.31
842-LC4032ZE-7TN48I	LC4032ZE-7TN48I	TQFP-48	1.8	4.4	260	32	1.51	1.32	1.20
842-LC4064ZE-5MN64C	LC4064ZE-5MN64C	CSBGA	1.8 V	4.7	241	48	3.00	2.70	2.62
842-LC4064ZE-5TN100	LC4064ZE-5TN100C	TQFP-100	1.8 V	4.7	241	64	3.33	3.00	2.91
842-LC4064ZE-7TN100	LC4064ZE-7TN100I	TQFP-100	1.8 V	4.7	241	64	3.33	3.00	2.91
842-LC4064ZE-7MN144	LC4064ZE-7MN144C	csBGA-144	1.8	4.7	241	64	4.94	4.49	4.11
842-LC4128ZE-5TN100C	LC4128ZE-5TN100C	TQFP-100	1.8 V	5.8	200	64	6.33	5.70	5.53
842-LC4128ZE-7TN100I	LC4128ZE-7TN100I	TQFP-100	1.8 V	5.8	200	64	6.33	5.70	5.53
842-LC4064ZE-7MN144	LC4064ZE-7MN144I	csBGA-144	1.8	4.7	241	64	3.84	3.45	3.35
842-LC4128ZE-7MN144I	LC4128ZE-7MN144I	csBGA-144	1.8	5.8	200	96	6.80	6.10	5.95
842-LC4128ZE-7TN144C	LC4128ZE-7TN144C	TQFP-144	1.8	5.8	200	96	9.24	8.40	7.70
842-LC4128ZE-7UMN132C	LC4128ZE-7UMN132C	ucBGA-132	1.8	5.8	200	96	8.82	8.01	7.35
842-LC4256ZE-7MN144I	LC4256ZE-7MN144I	csBGA-144	1.8	5.8	200	108	14.00	12.55	12.25
842-A5128/6410VNC	M4A5-128/64-10VNC	TQFP-100	5	5.5	167	64	14.10	12.81	11.75
842-M4A5128/6410YNC	M4A5-128/64-10YNC	PQFP-100	5	5.5	167	64	14.20	12.90	11.83
842-M4A5128/6410YNC	M4A5-128/64-10YNC	PQFP-100	5	5.5	167	64	14.10	12.81	11.75
842-M4A5128/6412VI	M4A5-128/64-12VI	TQFP-100	5	5.5	167	64	14.20	12.90	11.83
842-A5128/6412VNI	M4A5-128/64-12VNI	TQFP-100	5	5.5	167	64	14.10	12.81	11.75
842-A5192/9610VNC	M4A5-192/96-10VNC	TQFP-144	5	6.0	160	96	35.40	32.18	29.50
842-M4A5256/12810YNC	M4A5-256/128-10YNC	PQFP-208	5	6.5	154	128	53.60	48.72	44.66
842-M4A532/3210JC	M4A5-32/32-10JC	PLCC-44	5	5.0	182	32	4.40	4.00	3.66
842-M4A532/3210VNC	M4A5-32/32-10VNC	TQFP-44	5	5.0	182	32	4.70	4.27	3.91
842-A532/3210VNC48	M4A5-32/32-10VNC48	TQFP-48	5	5.0	167	32	5.10	4.63	4.25
842-M4A532/3210VNI	M4A5-32/32-10VNI	TQFP-44	5	5.0	167	32	5.90	5.36	4.91
842-M4A564/3210JNC	M4A5-64/32-10JNC	PLCC 44	5	5.0	167	32	5.40	4.90	4.50
842-M4A564/3210VNC	M4A5-64/32-10VNC	TQFP-44	5	5.0	167	32	6.10	5.54	5.08
842-A564/3210VNC48	M4A5-64/32-10VNC48	TQFP-48	5	5.0	167	32	6.10	5.54	5.08
842-M4A596/4810VNC	M4A5-96/48-10VNC	TQFP 100	5	5.0	167	48	15.10	13.72	12.58

LATTICE PROGRAMMABLE LOGIC DEVICES (CPLDS)

The MachXO family of non-volatile infinitely reconfigurable Programmable Logic Devices (PLDs) is designed for applications traditionally implemented using CPLDs or low-density FPGAs. Widely adopted in a broad range of applications that require general purpose I/O expansion, interface bridging and power-up management functions, MachXO PLDs offer the benefits of increased system integration by providing embedded memory, built-in PLLs, high performance LVDS I/O, remote field upgrade (TransFRM technology) and a low power sleep mode, all in a single-device.

Designed for a broad range of low density applications including system control designs, the MachXO PLD family is used in a variety of end markets including consumer, automotive, communications, computing, industrial and medical.



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Lattice Part No.	Package	LUTs	Voltage (V)	I/O	Grade	Price Each		
							1	25	100
842-MXO1200C3FTN256C	LCMXO1200C-3FTN256C	ftBGA-256	1200	1.8V/2.5V/3.3V	73	-3	20.50	18.63	17.08
842-MXO1200C3TN100C	LCMXO1200C-3TN100C	TQFP-100	1200	1.8V/2.5V/3.3V	73	-3	16.20	14.72	13.50
842-MXO1200C3TN100I	LCMXO1200C-3TN100I	TQFP-100	1200	1.8V/2.5V/3.3V	73	-3	19.00	17.27	15.83
842-MXO1200C3TN144C	LCMXO1200C-3TN144C	TQFP-144	1200	1.8V/2.5V/3.3V	113	-3	17.90	16.27	14.91
842-MXO1200C3FTN256I	LCMXO1200C-3FTN256I	FTBGA-256	1200	1.8V/2.5V/3.3V	211	-3	18.00	15.70	14.50
842-CMXO1200C3TN144I	LCMXO1200C-3TN144I	TQFP-144	1200	1.8V/2.5V/3.3V	113	-3	16.05	13.95	12.93
842-CMXO1200C4TN144C	LCMXO1200C-4TN144C	TQFP-144	1200	1.8V/2.5V/3.3V	113	-4	16.05	13.95	12.93
842-MXO1200C5TN100C	LCMXO1200C-5TN100C	TQFP-100	1200	1.8V/2.5V/3.3V	73	-5	22.00	20.00	18.33
842-MXO2280C4FTN256C	LCMXO2280C-4FTN256C	CSBGA-132	2280	1.8V/2.5V/3.3V	211	-4	26.95	23.45	20.40
842-MXO2280C4FTN324C	LCMXO2280C-4FTN324C	FTBGA-324	2280	1.8V/2.5V/3.3V	271	-4	30.25	26.35	22.90
842-MXO2280C3TN100C	LCMXO2280C-3TN100C	TQFP-100	2280	1.8V/2.5V/3.3V	73	-3	21.30	19.36	17.75
842-CMXO2280C3TN100I	LCMXO2280C-3TN100I	TQFP-100	2280	1.8V/2.5V/3.3V	73	-3	23.40	21.27	19.50
842-MXO2280C3TN144C	LCMXO2280C-3TN144C	TQFP-144	2280	1.8V/2.5V/3.3V	73	-3	23.10	21.00	19.25
842-CMXO2280C4TN144C	LCMXO2280C-4TN144C	TQFP-144	2280	1.8V/2.5V/3.3V	113	-4	24.95	21.75	18.90
842-MXO2280C5FTN324C	LCMXO2280C-5FTN324C	ftBGA-324	2280	1.8V/2.5V/3.3V	271	-5	34.70	31.54	28.91
842-LCMXO256C3MN100C	LCMXO256C-3MN100C	CSBGA-100	256	1.8V/2.5V/3.3V	78	-3	7.20	6.54	6.00
842-MXO256C3TN100C	LCMXO256C-3TN100C	TQFP-100	256	1.8V/2.5V/3.3V	78	-3	6.70	6.09	5.58
842-MXO256C3TN100I	LCMXO256C-3TN100I	TQFP-100	256	1.8V/2.5V/3.3V	78	-3	6.00	5.25	4.81
842-LCMXO256C4TN100C	LCMXO256C-4TN100C	TQFP-100	256	1.8V/2.5V/3.3V	78	-4	6.00	5.25	4.81
842-LCMXO256C4TN100I	LCMXO256C-4TN100I	TQFP-100	256	1.8V/2.5V/3.3V	78	-4	8.90	8.09	7.41
842-MXO256C5TN100C	LCMXO256C-5TN100C	TQFP-100	256	1.8V/2.5V/3.3V	78	-5	8.90	8.09	7.41
842-LCMXO0640C3MN100C	LCMXO0640C-3MN100C	CSBGA-100	640	1.8V/2.5V/3.3V	74	-3	12.40	11.27	10.33
842-CMXO0640C4FTN256C	LCMXO0640C-4FTN256C	FTBGA-256	640	1.8V/2.5V/3.3V	159	-4	13.95	12.15	11.18
842-CMXO0640C3FTN256I	LCMXO0640C-3FTN256I	ftBGA-256	640	1.8V/2.5V/3.3V	159	-3	13.95	12.15	11.18
842-MXO0640C3TN100C	LCMXO0640C-3TN100C	TQFP-100	640	1.8V/2.5V/3.3V	74	-3	11.90	10.81	9.91
842-MXO0640C3TN100I	LCMXO0640C-3TN100I	TQFP-100	640	1.8V/2.5V/3.3V	73	-3	13.70	12.45	11.41
842-MXO0640C3TN144C	LCMXO0640C-3TN144C	TQFP-100	640	1.8V/2.5V/3.3V	113	-3	13.60	12.36	11.33
842-MXO0640C3TN144I	LCMXO0640C-3TN144I	TQFP-100	640	1.8V/2.5V/3.3V	113	-3	11.95	10.40	9.62
842-MXO0640C4MN132C	LCMXO0640C-4MN132C	csBGA-132	640	1.8V/2.5V/3.3V	101	-4	11.30	9.85	9.06
842-LCMXO04TN144C	LCMXO0640C-4TN144C	TQFP-144	640	1.8V/2.5V/3.3V	113	-4	11.95	10.40	9.62
842-MXO0640C5TN144C	LCMXO0640C-5TN144C	TQFP-144	640	1.8V/2.5V/3.3V	113	-5	20.88	18.98	17.40
842-LCMXO0640E3TN100C	LCMXO0640E-3TN100C	TQFP-100	640	1.8-3.3	74	3	11.90	10.81	9.91
842-LCMXO0640C-3BN256	LCMXO0640C-3BN256I	csBGA-256	640	1.8-3.3	159	3	12.25	10.65	10.06
842-CMXO0640C3FTN256C	LCMXO0640C-3FTN256C	csBGA-256	640	1.8-3.3	159	3	12.55	12.17	11.80
842-LCMXO0640C3MN132I	LCMXO0640C-3MN132I	csBGA-132	640	1.8-3.3	101	3	11.30	9.85	9.06
842-LCMXO1200C3BN256C	LCMXO1200C-3BN256C	csBGA-256	1200	1.8-3.3	211	3	18.40	16.72	15.33
842-LCMXO1200C-3BN25	LCMXO1200C-3BN256I	csBGA-256	1200	1.8-3.3	211	3	15.85	13.80	13.06
842-CMXO1200C3MN132I	LCMXO1200C-3MN132I	csBGA-132	1200	1.8-3.3	101	3	14.56	13.40	12.37
842-LCMXO2280C-3BN25	LCMXO2280C-3BN256I	csBGA-256	2280	1.8-3.3	211	3	23.75	20.65	17.95
842-MXO2280C3FTN256C	LCMXO2280C-3FTN256C	csBGA-256	2280	1.8-3.3	211	3	23.45	20.40	17.75
842-MXO2280C3FTN324I	LCMXO2280C-3FTN324I	ftBGA-324	2280	1.8-3.3	271	3	30.25	26.35	22.90
842-2256HC4MG132I	LCMXO2-256HC-4MG132I	csBGA-132	256	1.14-3.465	56	4	6.50	5.90	5.41
842-2256HC4TG100C	LCMXO2-256HC-4TG100C	TQFP-100	256	1.14-3.465	56	4	5.44	4.94	4.53
842-2256ZE1TG100C	LCMXO2-256ZE-1TG100C	TQFP-100	256	1.14-3.465	56	1	5.44	4.94	4.53
842-XO2640HC4MG132C	LCMXO2-640HC-4MG132C	csBGA-132	640	1.14-3.465	80	4	8.16	7.41	6.79
842-XO2640HC4TG100C	LCMXO2-640HC-4TG100C	TQFP-100	640	1.14-3.465	79	4	7.56	6.86	6.28
842-XO2640UHC4TG144C	LCMXO2-640UHC-4TG144C	TQFP-144	640	1.14-3.465	108	4	9.32	8.46	7.75
842-XO2640ZE1MG132C	LCMXO2-640ZE-1MG132C	csBGA-132	640	1.14-3.465	80	1	8.16	7.41	6.79
842-XO2640ZE1TG100C	LCMXO2-640ZE-1TG100C	TQFP-100	640	1.14-3.465	79	1	7.56	6.86	6.28
842-XO21200HC4MG132C	LCMXO2-1200HC-4MG132C	csBGA-132	1200	2.375-3.465	105	4	10.00	9.08	8.33